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MEMORANDUM

To:	Valmichael Leos and Barbara Nann U.S. Environmental Protection Agency	**Date:**	May 17, 2012
From:	John Laplante, John Verduin, Wendell Mears, and David Keith, Anchor QEA	**Project:**	090557-01
Cc:	Gary Miller, USEPA Philip Slowiak, IP March Smith, MIMC David Moreira, MIMC		
Re:	Post-TCRA Quarterly Inspection Report - April 2012 Inspection		

Introduction

This document reports the results of the inspection conducted in April 2012 at the San Jacinto River Waste Pits (SJRWP) for the protective cover, fencing, and signage installed for the Time Critical Removal Action (TCRA).

Background

The TCRA was implemented by International Paper Company (IP) and McGinnes Industrial Maintenance Corporation (MIMC) under an Administrative Settlement Agreement and Order on Consent (AOC) with the U.S. Environmental Protection Agency (USEPA) – Docket No. 06-12-10, effective May 17, 2010. A full description of the TCRA implementation is provided in the associated project documentation:

- Removal Action Work Plan (RAWP; Anchor QEA 2010, 2011)
- Removal Action Completion Report (RACR; Anchor QEA 2012)

The inspection summarized in this document was conducted in accordance with the schedule established in the Operations, Monitoring, and Maintenance (OMM) Plan

(Appendix N of the RACR – Anchor QEA 2011b)[1]. The OMM Plan specifies the timing, pertinent items, tolerances, and procedures for inspection and repair of the protective cover, fencing, and signage installed for the TCRA at the San Jacinto River Waste Pits Superfund Site (Site) in Harris County, Texas (Figure 1).

Monitoring

The purpose of this report is to document the inspection of the protective cover, fencing, and signage installed as part of the TCRA, as well as, corrective actions taken (if any) following the inspection. The inspections evaluate and report the conditions of the following TCRA elements:

- Visual inspection of the security fence and signage surrounding the Site.
- Visual inspection of the armored cap located above the water surface.
- Visual confirmation that waste materials are not being actively eroded into the San Jacinto River.
- Collecting hydro and topographic survey data of the armored cap to compare the current elevations with the survey collected during the January 2012 quarterly inspection.
- Manual probing of armored cap thickness at contiguous areas identified by the monitoring survey as more than 6 inches lower in elevation than the January 2012 quarterly inspection survey.

Visual Inspection

The visual inspection included observing the current conditions of the perimeter fence, warning signs, and the portion of the armored cap visible above the water line of the San Jacinto River. Figure 2 displays the location of the perimeter fence and the stand-alone signs around the armored cap (additional signs are affixed directly onto the perimeter fence). The inspection was performed on April 11, 2012. Photographs of Site conditions observed during the visual inspection are provided in Appendix A (Figures A-1 to A-9).

[1] The OMM Plan was attached to the Draft RACR, and authorization to implement the OMM Plan was contained in an email dated January 18, 2012.

All visible portions of the armor cap were observed to be intact; there was no observed evidence of materials being eroded into the San Jacinto River; and there was no damage noted to on-site signage. No damage was observed to the perimeter fencing with the exception of one small breach in the perimeter fencing that has since been repaired. A summary of each facet of the visual inspection follows in the next three sections.

Armored Cap

The upland portions of the armored cap were visually inspected on April 11, 2012. Photographs from the inspection event are provided in Appendix A (Photographs 01 through 14). None of the visible portions of the armored cap were identified as having been breached or otherwise damaged. No movement or erosion of waste materials into the San Jacinto River was observed; the eastern edge of the armored cap was observable above the water line (Photograph 03) and the eastern edge appeared to be unchanged from the previous inspection.

Approximately 18.4 inches of rainfall fell within the area from January 1 to April 11, 2012 (Source: National Weather Service, (http://www.nws.noaa.gov/climate/index.php?wfo=hgx). This is approximately 7 inches more than the cumulative average through April 11, 2012. There were no significant floods or tropical events during the period since the previous inspection in January 2012.

Perimeter Fencing

The perimeter fencing (Figure 2) on the west and east banks of the San Jacinto River were visually inspected on April 11, 2012, for breaches or other signs of damage. No breaches and other signs of fence damage were observed on this date on the east bank or on the west bank on the north side of I-10.

One breach was observed in the fence on the west bank on the south side of I-10. The breach was located at the very west end of the perimeter fence and was approximately 18-inches by 24-inches in size (Appendix A, Photographs 25 through 27). Repairs were made by fitting additional chain link fencing to the original perimeter fence (Appendix A, Photographs 28 and 29). Following the repair of the 18-inch by 24-inch breach, all of the perimeter fence is intact.

Because this is the second instance of a fence breach at this location (the west end of the perimeter fence was also repaired in December 2011), the Respondents also contacted Harris County Sheriff's Office on April 24, 2012, and requested an increase in patrols at this location on weekends.

The portion of the fence installed along the south boundary of the San Jacinto River Fleet (SJRF) property is not included in the fencing inspection, as it is currently an active facility that conducts daily security checks, as required by the U.S. Coast Guard and Transportation Security Administration, for an active maritime fleeting area.

Signage

"Danger" and "No Trespassing" signs are posted at regular intervals on the perimeter fencing surrounding the Site. For examples, see Photographs 18, 19, 20, 31, and 33 in Appendix A. These signs were observed to be in place during the April 11, 2012 inspection.

A total of fifteen "Danger" and "No Trespassing" signs were installed at the Site around the perimeter of the Western Cell; the signs are mounted on steel posts and set in concrete pads. For examples, see Photographs 1, 6, 11, and 16 in Appendix A. These signs were observed to be in place during the April 11, 2012 inspection. These signs are intended to face the San Jacinto River to deter water-based entry to the SJRWP. Some of these signs had rotated out of proper alignment due to the wind; the affected signs were re-aligned to the intended viewing perspective.

Three USEPA Public Notice signs are present around the Site located: 1) near the gate entry point for the perimeter fence north of I-10; 2) near a gate entry point south of I-10; and 3) at the end of the TxDOT right-of-way north of I-10 near the San Jacinto River. For an example, see Photograph 18 in Appendix A. These three signs were observed to be in place and undamaged.

Table 1 summarizes the condition of the Site signage described in this section.

Table 1

TCRA Perimeter Fencing and Sign Inspection Punch List

Task	Status	
	Completed	Date
Perimeter Fence Visually inspect the perimeter fencing on the east and west sides of the San Jacinto River.	Yes	4/11/2012
"Danger" and "No Trespassing" Signs Visually inspect the 15 signs to verify that they remain in place.	Yes; reoriented some of the signs	4/11/2012
USEPA Public Notice Signs Visually inspect the 3 signs to verify that they remain in place.	Yes	4/11/2012

Surveys

Portions of the armored cap above the water surface or at a water depth too shallow to access by boat were surveyed using land-based topographic survey techniques. A bathymetric survey was performed for the portions of the armored cap below the water surface and accessible by boat. The surveyor followed the track line spacing, measurement intervals, and accuracy requirements detailed in the OMM Plan. All areas of the armored cap were accessible for the inspection survey.

Survey Tolerance Requirements

The OMM Plan requires that each survey be compared with the prior completed survey using the following criteria:

1. Areas with elevations that are within 6 inches of the previous survey require no action.
2. Contiguous areas with elevation changes exceeding plus or minus 6 inches trigger a review of the survey benchmarks for accuracy or movement.
3. Areas where surveyed elevations are 6 inches higher or lower than the prior survey for a contiguous area larger than 30 feet by 30 feet will require probing to measure the cap thickness.

Survey Results

The survey for this quarterly inspection event was conducted by Hydrographic Consultants, Ltd. between April 13, 2012 and April 26, 2012. The survey event took 13 days to complete due to seasonal tides and weather delays. Figure 3 displays the results of the completed survey.

This survey dataset was compared to the previous quarterly inspection survey[2] to evaluate the differences in the top of armor cap elevation between surveys. These differences are shown on Figure 3.

The threshold limits established by the OMM Plan (±0.5 foot over a 30 foot by 30 foot area) were not exceeded and probing was not required.

Repairs to TCRA Construction Elements

As discussed above, the only TCRA construction element found to be damaged or otherwise deficient from the conditions observed during the January 2012 inspection is the breached 18-inch by 24-inch area of the perimeter fence. There were no deficiencies found during the signage or armored cap inspections; therefore, no repairs to either construction element were required in response to the April 2012 armored cap inspection.

Inspection Summary

The visual inspection event did not identify damaged or otherwise deficient areas in the armored cap or signage. One breach was observed in the perimeter fence, approximately 18-inches by 24-inches in size, on the west bank on the south side of I-10; this breach was repaired on April 16, 2012. The "No Trespassing" signs positioned around the Western Cell were reoriented during the inspection. No further repair requirements were identified.

With regard to the armored cap survey, the small areas identified as increases and decreases in elevation can be attributed to the horizontal and vertical accuracy of the survey, minor

[2] Hydrographic Consultants, Ltd. conducted the previous quarterly inspection survey; that survey event was completed January 31, 2012.

shifts in track line location from the baseline survey, elevation data recorded in the crevices between rock surfaces, or other related measuring inaccuracies. The potential for these inaccuracies to exist was confirmed by the surveyor after reviewing the data. The photographs taken in the eastern cell at these locations during low tides indicate that the armored cap is in place, as constructed. Further comparison of the April 2012 survey to the post-construction baseline conditions survey did not indicate that any portions of the armored cap were deficient. Very little, if any, settlement and consolidation of the foundation can be discerned when comparing the September 2011 and April 2012 surveys.

References

Anchor QEA, LLC (Anchor QEA), 2010. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. November 2010.

Anchor QEA, 2011. *Removal Action Work Plan*, San Jacinto River Waste Pits Superfund Site. Prepared for U.S. Environmental Protection Agency (USEPA) Region 6 on behalf of McGinnes Industrial Maintenance Corporation and International Paper Company. Revised February 2011.

Anchor QEA, 2012. *Revised Draft Final Removal Action Completion Report*, San Jacinto River Waste Pits Superfund Site. Prepared for McGinnes Industrial Maintenance Corporation, International Paper Company, and U.S. Environmental Protection Agency (USEPA) Region 6. Revised March 2012.

USEPA, 2010. *Administrative Settlement Agreement and Order on Consent for Removal Action*. U.S. Environmental Protection Agency Region 6 CERCLA Docket No. 06-03-10. In the matter of: San Jacinto River Waste Pits Superfund Site Pasadena, Harris County, Texas. International Paper Company & McGinnes Industrial Management Corporation, Respondents.

FIGURES

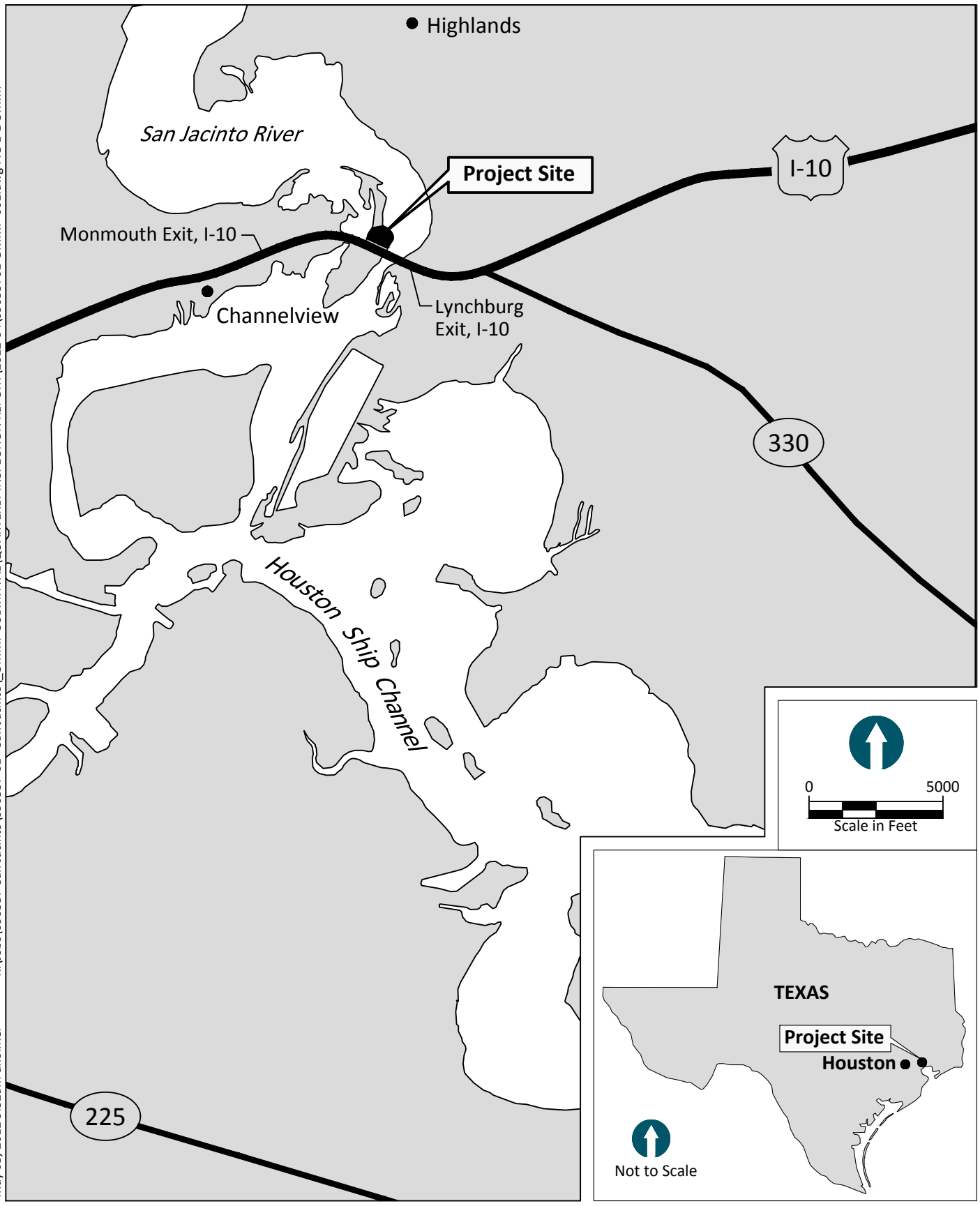

Figure 1
Vicinity Map
Post TCRA Quarterly Inspection (April 2012)
San Jacinto River Waste Pits Superfund Site

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SOURCE: Martin Survey Associates, Inc. survey dated 2/23/2010 - 3/01/2010.
AERIAL SOURCE: Google Earth, 2011.
NOTES:

1. Existing access gates have two 12-foot-wide leafs providing a 24-foot-wide opening.
2. Coordinates are in Texas State Plane, NAD 83 (South Central Zone). Coordinates shown are grid. Multiply by 1.0001007882 to convert to surface coordinates.
3. A guardrail barrier was constructed along the south side of the access road, and conformed to TxDOT Specifications Manual Items 540, 542, and 544.
4. Power line poles providing service to billboards were moved near TxDOT ROW property line.
5. "Danger" and "No Trespassing" signs have been installed on TCRA fencing.

S01 S02 S03 S04 S05 S06 S07 S08 S09 S10 S11 S12 S13 S14 S15

Access Gate (See Note 1)

South Right-Of-Way (Approximate)

Access Gate (See Note 1)

Existing Fence Terminates in Water

℄ Westbound Lane I-10 to Houston

℄ Eastbound Lane I-10 to Baytown

I-10

SAN JACINTO RIVER

Fence Terminates at Concrete of I-10 Bridge

Fence Terminates at Shoreline

SAN JACINTO RIVER

Fence Line Follows Southern Limits of the TxDot Right-Of-Way

Crosby-Lynchburg Road

Access Gates

LEGEND:

- Texas Department of Transportation (TxDOT) Right-Of-Way (ROW) (Approximate)
- Existing Fence
- S01 ⚠ Approximate Location of "Danger" and "No Trespassing" Signs along the Western Cell Perimeter.

0 300
Scale in Feet

K:\Jobs\090557-San Jacinto\090557-01 - San Jacinto_OMMP SUBMITTAL\QUARTERLY INSPECTION REPORT\2012-04\09055701-OMMP-002.dwg Fig 2
May 03, 2012 9:32am dholmer

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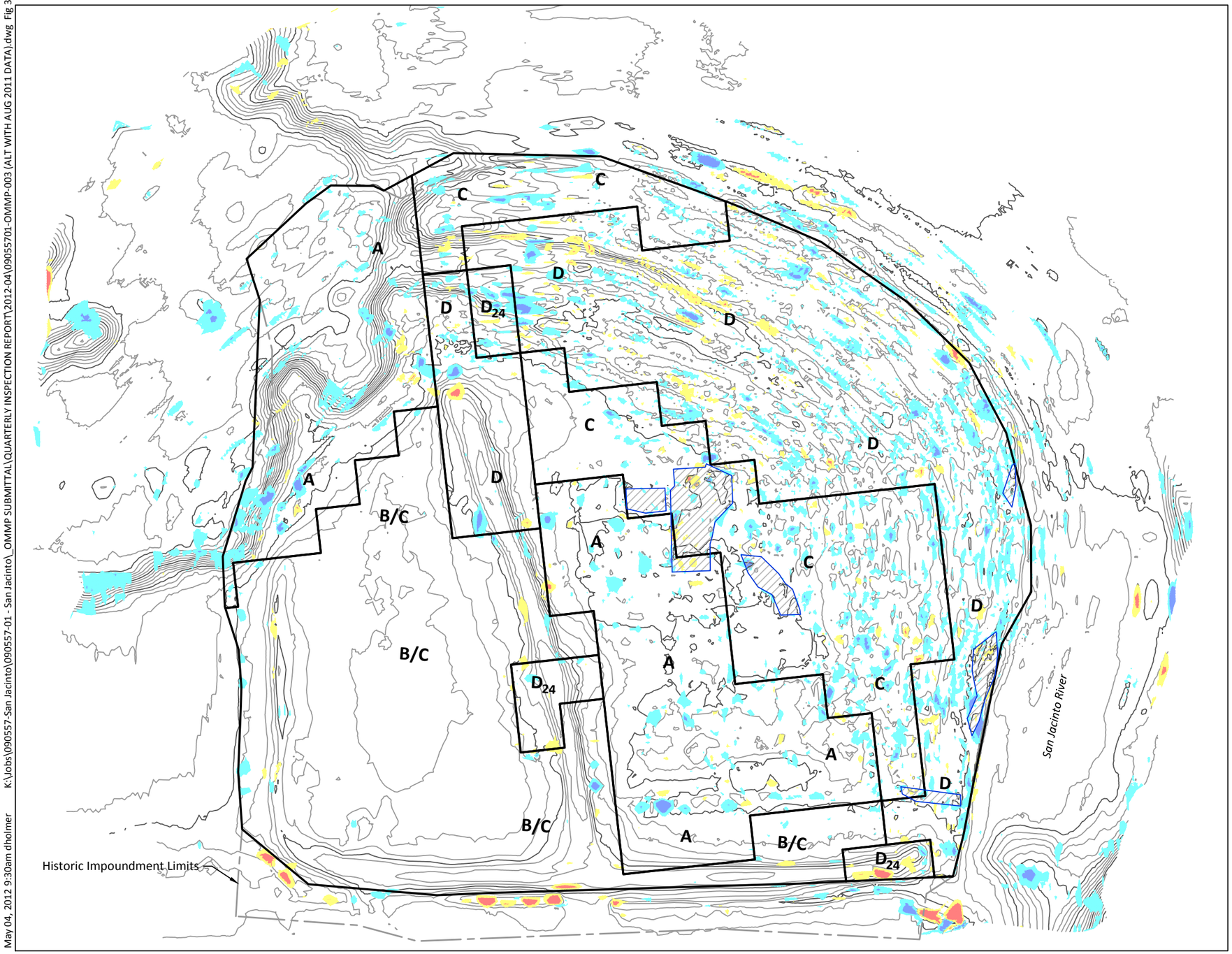
Figure 2
Fence and Warning Sign Layout
Post TCRA Quarterly Inspection (April 2012)
San Jacinto River Waste Pits Superfund Site



LEGEND:

- Existing Contour (1 Foot Interval)
- B/C — Armored Cap Type and Boundary
- Historic Impoundment Limits
- > 1.0 Foot Increase
- 0.5 Foot Increase to 1.0 Foot Increase
- 0.5 Foot Increase to 0.5 Foot Decrease
- 0.5 Foot Decrease to 1.0 Foot Decrease
- > 1.0 Foot Decrease
- August 2011 - April 2012 Survey Comparison
- 30' x 30' — Example 30'x30' Area

SOURCE: Drawing prepared from surveys provided by Hydrographic Consultants dated August 2011, January 2012, and April 2012.
HORIZONTAL DATUM: Texas State Plane South Central, NAD83, U.S. Feet.
VERTICAL DATUM: NAVD 88.

0 120
Scale in Feet

May 04, 2012 9:30am dholmer K:\Jobs\090557-San Jacinto\090557-01 - San Jacinto_OMMP SUBMITTAL\QUARTERLY INSPECTION REPORT\2012-04\09055701-OMMP-003 (ALT WITH AUG 2011 DATA).dwg Fig 3

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Figure 3
April 2012 Quarterly Inspection Survey
Post TCRA Quarterly Inspection (April 2012)
San Jacinto River Waste Pits Superfund Site

APPENDIX A
INSPECTION PHOTOGRAPHIC LOG

Photo 01: Warning sign and south portion of the Eastern Cell (view west).

Photo 02: South portion of the Eastern Cell (view west).

Photo 03: Eastern edge of the armored cap (thickened edge) visible above the water line (view northeast)

Photo 04: South portion of the Eastern Cell (view east, from the Central Berm).

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Figure A-1
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 05: Eastern Cell (view northeast, from the Central Berm)

Photo 06: Central Berm and warning signs (view north)

Photo 07: Western Cell (view northwest, from the Central Berm)

Photo 08: South portion of the Western Cell (view west, from the Central Berm)

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Figure A-2
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 09: Armor Cap A rock in the Eastern Cell immediately east of the Central Berm (view north)

Photo 10: Armor Cap B rock immediately west of the Western Berm (view south)

Photo 11: Northern portion of the Western Cell (view northeast, from the Western Berm)

Photo 12: Interior portion of the Western Cell (view southeast, from the north end of the Western Berm)

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Figure A-3
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 13: Track from Morooka truck used during TCRA construction still visible in the surface of the cap in the Western Cell (view northwest)

Photo 14: Interior portion of the Western Cell (view northeast, from the south end of the Western Berm)

Photo 15: Warning signs present to the west of the SJRWP (view southwest)

Photo 16: Warning signs present on the Western Berm (view north)

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Figure A-4
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 17: Access road and guard rail located south of the SJRWP (view east)

Photo 18: Public notice sign and locked main access gate on the north side of I-10 (view east)

Photo 19: Fence and warning signs located immediately west of the main access gate (view northwest)

Photo 20: Locked access gate for perimeter fence on the west bank on the south side of I-10 (view west)

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Figure A-5
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 21: Perimeter fence on west bank south of I-10 (view east)

Photo 22: Perimeter fence on west bank south of I-10 (view west)

Photo 23: Fence terminus on the west bank south of I-10 (view west)

Photo 24: Warning sign adjacent to a bayou on the south side of I-10 (view south)

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Figure A-6
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 25: 18-inch x 24-inch fence breach observed at western end of the perimeter fence south of I-10 (view west)

Photo 26: 18-inch x 24-inch fence breach observed at western end of the perimeter fence south of I-10 (view east, binder in photo to provide scale)

Photo 27: Location of observed fence breach at western end of the perimeter fence south of I-10 (view northeast)

Photo 28: Repaired section of the perimeter fence at western end south of I-10 (view east)

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Figure A-7
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 29: Repaired section of the perimeter fence at western end south of I-10 (view north)

Photo 30: Fish advisory signs posted south of Market St. on the south side of I-10 (view south)

Photo 31: Locked access gate for the perimeter fence on the east bank of the San Jacinto River (view northwest)

Photo 32: South portion of perimeter fence on the east bank (view west)

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Figure A-8
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site

Photo 33: South portion of perimeter fence on the east bank (view west)

Photo 34: Fence terminus at the I-10 bridge on the east bank (view northeast)

Photo 35: Warning signs posted at the east bank of the San Jacinto River (view east) (view southwest)

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Figure A-9
Site Photographs
Post TCRA Inspection Report (April 2012)
San Jacinto River Waste Pits Superfund Site